Exhibit 1

(copy)

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PROPOSAL TO PURCHASE EQUIPMENT AND FACILITIES
FOR INCREASED PRODUCTION OF MICROPORITE

As reported previously, we reached a stage several weeks ago where we had -

> "Made commercial-size pieces with commercial-type equipment, and the resulting product when tested by the U.S. Navy specifications for Class A insulation, for use up to 500° F., and Class B, from 500° F. to 1000° F., passed on all points, the actual test work being conducted by the Experiment Station at Purdue."

We have since been securing and modifying various pieces of second-hand equipment to begin the manufacture, and are now producing about 100 cubic feet a day, which will be increased so that we expect to produce 1,000 cubic feet a day in sixty to ninety days.

Mr. Paul has submitted the material to a large number of people qualified to judge, and the reactions are very definitely enthusiastic. One of the large applicators has had trial lots to investigate its working properties for routing out small size pipe covering. It was pronounced satisfactory. Two different lots, the latter one of 500 square feet, have been installed at the Meadville Ordnance Works and pronounced satisfactory. These are of importance as indicating the reaction of applicators as distinguished from the specification of a purchaser, in which the Navy's is probably as severe as any.

From what we can judge from these various contacts, this material, when made in light weight, will do anything that magnesia block will do and some things that it won't. For example, magnesia block can only be used at temperatures below about 550° F. There are many uses where high pressure steam lines and turbines are too high for magnesia block and where they first place a clay material next to the hot surface and then apply magnesia block over the clay in the regions where the temperature is less than 500°. For instance, we are informed by an installation officer of the U. S. Navy, that the power plant insulation of the Navy at present averages about 22 lbs. per cubic foot. We can provide a similar degree of insulation with 12 lbs. per cubic foot, and have one material to apply instead of two.

In all probability there will be a substantial amount of naval and other marine construction for at least a year or two after the war ends to bring the new navy to full size and to replace the loss in merchant shipping. More important to us, however, are the other fields.

The insulating roof deck material has been ready for the market for some time, but since it uses a small amount of wire mesh in the long span segments, we could not go after orders for that except on priority, and our present facilities are so limited that we preferred not to touch a defense plant construction. We have a sufficient amount of wire mesh for 20,000 square

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feet and have arranged with the Barrett Company to put on one or more test roofs with us to get the benefit of their long experience. Mr. Cammann of Barrett Company advises that there is a very definite need for an insulating roof deck material of light weight, and there is no suitable one available.

Future Plans

If we wait two or three months until we have this small plant at Berlin operating at its capacity of about 1000 cubic feet per day ($1,400 - billing price) and then attempt to increase our capacity, we will have an extremely difficult time to do it for the following reasons:

The specialized equipment that we use are hardening cylinders similar to those used in the sand lime brick industry. They are cylinders commonly 6 ft. 6 inches in diameter and from 60 to 70 feet long. They have to be able to pass State inspection for operation at 125 lbs. pressure under the codes of unfired boilers. Although the sand lime brick business is declining, there are other uses that have developed recently for these cylinders, so that they are being gathered up rapidly. They are being used for the production of asbestos shingles, Transite pipe, and also for the molding of plywood in irregular shapes when laminated with phenolic resin. (In addition, they are being purchased by the rubber companies as vulcanizing chambers for such things as rubber life boats.) Note!

We have been attempting to locate a sand lime brick plant that would have the necessary cylinders and boilers that perhaps we could lease and have available when we get ready to increase in some two or three months. We seem unable to find such a plant although we have checked several - most of them having been stripped of their cylinders.

In our search we came across a plant at Perth Amboy, New Jersey, owned by the General Builders Supply Company, New York, which has been in operation continuously since 1933 although their orders are now falling off sharply. They have a $75,000 mortgage, and when we made the contact, we found them already negotiating to sell sufficient equipment to pay off the mortgage, thinking that the plant would be idle for an unknown period, and the demand for the equipment is such that they could sell it at approximately the price of new equipment in normal times. From our standpoint, it has the following:

Movable Equipment

7 Cylinders - 6'6" diameter, 65' long.
All approved by the State of New Jersey for 125 lbs. operation.
All well insulated, and for all practical purposes, as good as new.
There being no moving parts, these units have an indefinite life unless injured through accident. They have the modern, quick-opening type of door, and would cost, with foundations, installation and insulation, $7,000.00 each, or a total of $49,000.00.

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Movable Equipment (Cont'd)

305 Narrow Gauge Cars - the kind which are used to move material into and out of the cylinders and which we would use in our process. These, in normal times, cost $80.00 each new, and would have a used value in normal times of about $50.00 each, or $15,250.00.

There are several thousand feet of narrow gauge track, turntables, transfer cars, etc., conservatively worth $2,500.00.

There are two 150 H.P. McKee boilers, apparently in good order, and operated with feed water pump and various gauges and accessory devices - all enclosed in a very suitable brick building. These will provide the pressure of steam we need and the necessary quantity for seven cylinders. The value of the boilers, building, and stacks is being determined more accurately, but will certainly be in excess of $20,000.00.

The same portions of the building that have been used in the past for storing of sand and lime will serve to store those same materials for us.

Terms

Unable to lease the plant because they were planning to sell the equipment to pay off the mortgage, we had Mr. John K. Koffett contact General Builders Supply Company without disclosing who he represented, and negotiate to see what kind of an arrangement could be secured for the out-right purchase of the buildings, land, and all equipment. The best price that he could secure was $130,000.00.

The buildings that are there are suitable for our purpose although we would probably have to add ultimately some additional building space of a very simple one-story character either to house the continuous drier which would ultimately be installed, or storage, and utilize certain space now there for the drier.

If we purchase at the above figure, the amount that we will be investing in buildings and land will be comparatively small. A firm of architects is examining the property for us today, and will give us a more detailed report on probable value of the buildings. We would buy primarily equipment that is essential for our process, and such a purchase appears to be the only prospect we have of increasing capacity on this item during the war period. The plant has the necessary cylinders, narrow gauge cars, and steam to produce ultimately $1,500,000 a year, invoice values, based on the 1937 selling prices for the materials with which we will primarily compete.

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A few months ago Mr. Hancock made a cost study of the process and product as it then stood, and from which there have been very few changes. We have eliminated a pre-cooking stage, but have added a few cents per cubic foot for better grade asbestos and a small amount for processing it through a paper mill beater. The cost figures that he developed, predicated on a four-cylinder operation, were in the range of 35 cents to 37 cents per cubic foot. We expect the product, in its present final form, has not changed from that by more than a few cents per cubic foot. The choice of all necessary equipment has been determined for the process with the exception that the preparation of the asbestos now being done by a small paper mill beater may be more effectively done by something still simpler.

Just how much it will take us to assemble the additional equipment to round out this plant, we cannot tell under present conditions because it will be largely a matter of purchasing used equipment, some of which may have to be modified, but we visualize an ultimate capital investment by the time this plant would be brought to capacity of perhaps $300,000.00 or 20 per cent of potential annual sales.

The factory costs of approximately 35 cents to 37 cents, predicated on a volume of four cylinders instead of the seven that are in this plant, and selling price of $1.44 seem to indicate that we have in a comparatively low cost product the properties now possessed only by much higher priced products. Mr. Paul, as a result of his market studies of the product, is definitely of the belief that it would be a simple matter to dispose of the output of such a plant even in normal times.

The fact that this appears to offer the only possible way in which we can provide for productive facilities for this new material without waiting for the end of the war appears to me to be sufficient to warrant that risk there is in purchasing the plant and equipment, particularly in view of the small amount that would need to be allowed against buildings and land.

DIRECTOR OF RESEARCH

U. E. Bowes
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